



Case No. PU-14-842 Dakota Access Pipeline Project PU-742-16 Keitu Engineers & Consultants, Inc.

Site/Project Location: MP 61 to 65 Spread 7-8 SE Dodge ND

Date of Inspection: 26 August 2016

Inspected 5 miles of pipeline ROW approximately 2.3 miles SE of Dodge ND including archy site 32DU2255 County Road 7 west of Golden Valley, ND.

Observed Work / Weather Conditions

Visited between 9:30 am 12:35 pm. Overcast clearing to broken skies. Unrestricted visibility. SW wind at 6-18 mph. No precipitation during visit. Standing water noted only at water crossings and notably a milky white water ground seep with no apparent reason north of HDD bore at County Road 7. Temperature 68-72 °F.

No active construction activity during visit in area. Line in trench and covered with subsoil to subgrade in most locations however approximately 10 segments of pipe trench remained open for tie-in crews to complete intrench work and/or welds to adjacent pipe. ROW survey stakes remain in place.

Top Soil Management / Condition / Erosion Control / Stormwater Management

Top soil remains segregated. Where exposed, topsoil in region typically only 1-3 inches in depth. Three short areas of subsoil cast on or plowed onto adjacent topsoil noted of limited duration. Stormwater BMPs remain in place and in good repair. Drainage points protected with straw bales or silt fence were cleared of silt. Extreme high sloped areas i.e 12+% grade typically had shallow trench flow breakers. One area of soil piles extending beyond staked boundaries of minor duration (less than 12 inches) noted.

Vegetation Condition

Tree removal areas adjacent to water body crossings bores appeared to be narrowed consistent with PSC order. Water bodies have yet to be trenched or bored. Very few tree/shrub areas noted.

Depth of Cover / Road Crossings / River Crossings / Riparian Condition at HDD Bore Sites

Open trench areas (10) observed appeared to be at specified depth or deeper. Two water crossings noted with narrowed work areas with riparian vegetation protected by silt fences. No active HDD operations noted.

Other Project Issues

Surface disturbance through archy site 32DU2255 measured at 83 feet wide at stone Feature 13 which was most at risk. NDSHPO approved transecting the site with 85 foot wide workspace. Banner flags used as fencing.

Deficiencies

A few areas of minor subsoil contact with topsoil and/or surface vegetation. One area appeared specifically associated with late stage install of flow breaker on steep slope of ROW as opposed to initial top soil stripping.

Banner flags were used to fence archeological site boundaries rather than fencing material.

Actions Taken/To Be Taken

SW Water District to be contacted to inquire if "milky water" seep north Mercer County Road 7 is cause for concern. Location will be targeted for post construction inspection to assure stone features remained intact.

Keitu Inspector: KMS <u>Inspection Report Submitted</u>: 1 September 2016



Report Photo #1 "Milky Water Seep Beneath County Road 7 HDD Pipe":

47.2416°N 102.9055°W

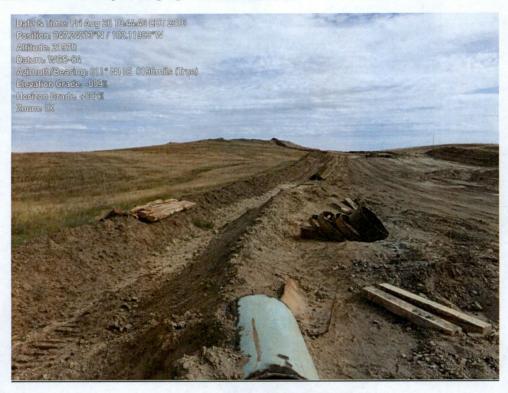


Report Photo #2 "Adequate Depth Trench with HDD/Std Pipe Looking NNE: 47.2416°N 102.9055°W

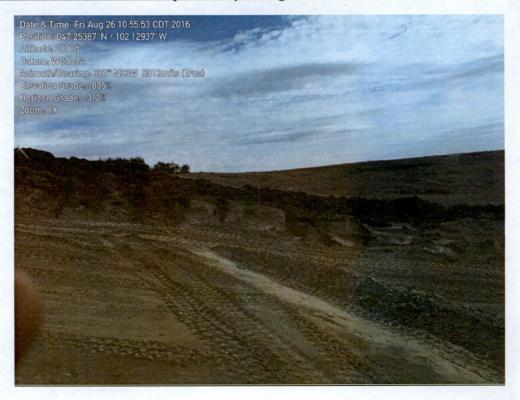


Report Photo #3 "Good Topsoil Segregation Looking NNE:

47.2421°N 102.1196°W



Report Photo #4 "Subsoil Cast on Topsoil Likely During Flow-breaker Install: 47.2539°N 102.1294°W



Report Photo #5 "Subsoil Thrown Beyond Stakes/On Top of Vegetation":

47.2812°N 102.1727°W



Report Photo #6 "Archy Site Fencing and Adjacent ROW":

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Report Photo #7 "'		
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Project Map Inspection Location:		
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